

2.4 Utilities and Emergency Services

2.4.1 Affected Environment

This section analyzes the potential impacts of the I-5 HOV Lane Extension Project on utilities and emergency services. This section is based on a review of existing utility and service providers and facilities in and immediately adjacent to the project disturbance limits.

2.4.1.1 Utilities

Utilities within the I-5 HOV Lane Extension project limits include:

- Overhead electrical, telephone, and cable TV lines
- Underground gas, sewer, water, electric, cable TV, and telephone lines

Within the study area, Southern California Gas (SCG) provides gas, San Diego Gas and Electric Company (SDGE) provides electricity, the City of San Clemente and City of San Juan Capistrano provide sewer services, the South Coast Water District (SCWD) provides water and sewer, the Tri Cities Metropolitan Water District (MWD) provides water, Cox Communications provides cable TV services, and AT&T provides telephone services.

2.4.1.2 Emergency Services

Fire protection services for the study area are provided through a fire services district that is administered and staffed by the Orange County Fire Authority (OCFA). The OCFA also provides emergency vehicles to the study area. Three OCFA fire stations that serve the study area are located within 0.5 mi of the project limits. These fire stations are listed below:

- OCFA Station No. 7 (located 0.28 mi north of the project limits)
31865 Del Obispo
San Juan Capistrano, CA 92675
- OCFA Station No. 29 (located 0.11 mi west of the project limits)
26111 Victoria Boulevard
Dana Point, CA 92624
- OCFA Station No. 50 (0.09 mi east of the project limits)
670 Camino de Los Mares
San Clemente, CA 92673

The Orange County Sheriff Department is responsible for police patrol and protection services in the Cities of Dana Point, San Clemente, and San Juan Capistrano. There are no Sheriff Patrol stations within the study area.

The California Highway Patrol (CHP) is responsible for patrol jurisdiction over all California highways. A CHP office is located approximately 130 feet (ft) west of the project limits at 32951 Camino Capistrano, San Juan Capistrano.

Hospital service is provided by Saddleback Memorial Medical Center, located at 654 Camino De Los Mares (approximately 240 ft east of the project limits) in the City of San Clemente, California.

2.4.2 Environmental Consequences

2.4.2.1 Temporary Impacts

Alternative 1 – No Build Alternative

The No Build Alternative does not require construction; therefore, there will be no temporary impacts to utilities and emergency services.

Build Alternatives 2 and 4 – Design Options A and B

The proposed project would cause temporary indirect construction-related traffic impacts. During construction, temporary traffic impacts may be experienced in the proposed project vicinity. Delays in traffic can be expected during construction. These delays could affect motorist travel times and the response time of emergency service vehicles. The construction-related traffic impacts would be temporary and a required TMP would be prepared to minimize effects during the construction period. Therefore, construction-related traffic impacts would not cause an adverse impact to public and emergency services. Minimization measures U-2, U-3, and U-4 are included to further minimize impacts.

As shown in Table 2.4-1, under Design Option B for both Alternatives 2 and 4, the proposed project would have direct temporary effects to the 27-inch SCWD Line located on the east side of I-5 at approximately 550 ft south of the Avenida Pico Undercrossing (UC). The 27-inch SCWD line will be relocated under the proposed NB off-ramp by approximately 110 ft to the limits of the new ROW. Also, under Design Option B, the South Coast Water District's 27-inch water line located on the east side of I-5 will be relocated to a permanent easement outside the proposed ROW, but within the full acquisition area already required for the construction of the new ramp (see Table 2.4-1) and will connect along the south side of Avenida Pico.

Table 2.4-1 Utility Impacts

Utility Provider	Type of Utility	Potential Utility Impacts
South Coast Water District	Reclaimed water line	A 12-inch reclaimed water line that crosses Interstate 5 (I-5) at approximately 580 feet (ft) south of the Avenida Pico undercrossing (UC) at STA 185+20 will be relocated by jacking a new easement across the freeway and placing the relocated water line inside it. This line is not currently encased. This reclaimed water line will be impacted under Design Options A and B for both Alternatives 2 and 4. The total length of encasement is approximately 440 ft under Design Option A and 500 ft under Design Option B.
South Coast Water District	Water line	A 27-inch water line located on the east side of I-5, located at approximately 550 ft south of the Avenida Pico UC at STA 185+20, will be extended to the limits of the new right-of-way (ROW). This line will not be relocated; rather the existing casing will be extended under the proposed NB off-ramp by approximately 110 ft. This water line will be impacted under Design Option B for both Alternatives 2 and 4.
South Coast Water District	Water line	A 27-inch water line located on the east side of I-5, located between STA 184+00 and STA 189+00, will be relocated outside the new ROW, along the south side of Avenida Pico. This water line will be impacted under Design Option B for both Alternatives 2 and 4. Approximately 720 ft of this line will need to be relocated outside the proposed ROW in a permanent easement along the NB off-ramp and connect back to the line on Avenida Pico.
South Coast Water District	Water line	A 10-inch water line located along Avenida Pico will be protected in place during construction activities under both Design Options A and B for both Alternatives 2 and 4.
City of San Clemente	Sewer line	An 8-inch sewer line located along Avenida Pico will be protected in place during construction activities under both Design Options A and B for both Alternatives 2 and 4.
City of San Clemente	Sewer line	A 12-inch sewer line located along Avenida Pico will be protected in place during construction activities under both Design Options A and B for both Alternatives 2 and 4.
South Coast Water District	Water line	A 27-inch water line located along Avenida Pico will be protected in place during construction activities under both Design Options A and B for both Alternatives 2 and 4.
Southern California Gas	Gas line	A 10-inch gas line located along Avenida Pico will be protected in place during construction under both Design Options A and B for both Alternatives 2 and 4.
Cox Communications	Cable Television	A Cox Cable line located along Avenida Pico will be protected in place during construction under both Design Options A and B for both Alternatives 2 and 4.
San Diego Gas and Electric Company	Underground electrical line	An underground 12-kilovolt (kV) electricity line along Avenida Pico will require the relocation of handholds and a transformer located at the northeast corner of Avenida Pico and Via Pico Plaza. This underground electrical line will be impacted under both Design Options A and B for both Alternatives 2 and 4.
City of San Clemente	Sewer line	An 18-inch sewer line that crosses I-5 approximately 1,150 ft north of the Avenida Pico UC at STA 202+50 will be protected in place during construction activities under both Design Options A and B for both Alternatives 2 and 4.

Table 2.4-1 Utility Impacts

Utility Provider	Type of Utility	Potential Utility Impacts
South Coast Water District	Water line	A 27-inch water line that crosses I-5 approximately 1,990 ft north of the Avenida Vaquero UC at STA 292+90 will be protected in place along both sides of I-5 under both Design Options A and B for both Alternatives 2 and 4.
San Diego Gas and Electric Company	Overhead electrical line	There are two overhead 12 kV electrical lines crossing I-5 approximately 170 ft north and 635 ft north of the Camino De Estrella overcrossing (OC). This line also runs parallel to the northbound on-ramp from Camino De Estrella. The overhead lines crossing I-5 will be protected in place. The portion of the line running parallel to the Camino de Estrella NB on-ramp will potentially be temporarily relocated in order to allow for the construction of a new soundwall along the east side of I-5 along the northbound on-ramp. This overhead line will be impacted under both Design Options A and B for both Alternatives 2 and 4.
South Coast Water District	Sewer line	An 8-inch sewer line that crosses I-5 approximately 1,085 ft north of the Camino De Estrella OC at STA 327+85 will be protected in place during construction under both Design Options A and B for both Alternatives 2 and 4.
AT&T	Telephone line	A telephone line that crosses I-5 approximately 1,160 ft north of the Camino De Estrella OC at STA 328+60 will be protected in place during construction under both Design Options A and B for both Alternatives 2 and 4.
South Coast Water District	Sewer line	An eight-inch sewer line that crosses I-5 at approximately 2,020 ft north of the Camino De Estrella OC at STA 335+20 will be protected in place during construction under both Design Options A and B for both Alternatives 2 and 4.
Tri Cities Metropolitan Water District	Water line	A 21-inch water line that crosses I-5 approximately 1,215 ft south of Via California at STA 349+35 will be protected in place during construction under both Design Options A and B for both Alternatives 2 and 4.
City of San Juan Capistrano	Sewer line	This 12-inch sewer line crosses I-5 approximately 1,200 ft north of Via California OC at STA 372+00. The existing 22-inch casing will be extended on both sides of I-5 to protect the line from the widened pavement section. This sewer line will be impacted under both Design Options A and B for both Alternatives 2 and 4.
San Diego Gas and Electric Company	Overhead electric line	A 12 kV overhead electrical line located along Camino Capistrano on the west side of I-5 between 1,500 ft southwest and northeast of the intersection of I-5 and Avenida Aeropuerto will be impacted under both Design Options A and B for Alternative 2. No impacts are anticipated under either Design Option A or B for Alternative 4.

Source: I-5 HOV Table – Proposed Utility Relocations for Alternatives 2 and 4, RMC, Inc., November 2010

In addition, the 12-inch reclaimed water line will also be relocated by jacking across the freeway in order to place it in an encasement.

The proposed project would have direct temporary effects to the City of San Juan Capistrano 12-inch sewer line. The existing 22-inch casing will be extended on both sides of I-5 to protect the line from the widened pavement section. This sewer line will be impacted under both Design Options A and B for Alternatives 2 and 4.

The proposed project would have direct temporary effects to the San Diego Gas and Electric Company's 12-kv underground electric line. This will require relocation of handholds and a transformer located at the northeast corner of Avenida Pico and Via Pico Plaza. This line will be impacted under both Design Options for both Alternatives.

The proposed project may result in direct temporary effects if the portion of the line running parallel to the northbound Camino de Estrella on-ramp is relocated in order to allow for the construction of a new soundwall along the on-ramp. This overhead line will be impacted under both Design Options for both Build Alternatives. In addition, the 12-kv line located along Camino Capistrano on the west side of I-5 will be directly impacted under both Design Options for Alternative 2 only.

These temporary direct impacts to utilities are not considered substantial due to standard project requirements that would be followed to avoid and minimize service disruptions during project construction. All utilities that require relocation as a result of this project would be relocated on site within the environmentally evaluated footprint of this project. Measure U-1 is included to avoid and further reduce impacts.

Some temporary indirect impacts to emergency response times may occur as part of traffic control and traffic delays during construction. The closures at the Avenida Pico interchange would result in short-term temporary impacts. However, these ramp closures will be limited to potential weekend closures and would not exceed the period of one week. Therefore, these temporary ramp closures at the Avenida Pico interchange are not considered adverse.

A TMP, as outlined in Section 1.3, Project Description, would be implemented to minimize temporary impacts to emergency response times. Therefore, direct and indirect temporary impacts to utilities and emergency services as a result of Build Alternatives 2 and 4 are not considered adverse.

2.4.2.2 Permanent Impacts

Alternative 1 – No Build Alternative

The No Build Alternative does not require construction; therefore, there will be no permanent impacts to utilities. However, without project implementation, all freeway segments are estimated to operate at LOS D or F, with the exception of the southbound mainline south of Avenida Pico during the a.m. peak period, northbound mainline south of Avenida Pico during the p.m. peak period, the northbound mainline south of State Route 1 (SR-1)/Camino Las Ramblas during the p.m. peak period, and the southbound mainline south of Camino Capistrano/Stonehill during the a.m. peak period. Therefore, emergency services (police, fire, and emergency vehicle services) may be delayed as traffic congestion worsens and the LOS in the study area declines, resulting in adverse impacts to emergency services.

Build Alternatives 2 and 4 – Design Options A and B

All impacts to utilities would be temporary and would be rectified when relocations of certain utilities and project construction is complete. As a result, there are no permanent impacts to utilities.

Implementation of Build Alternative 2 or 4 is anticipated to result in a positive impact to emergency services by improving the LOS within the project limits and reducing emergency response times.

2.4.3 Avoidance, Minimization, and/or Mitigation Measures

Design, construction, and inspection of utilities that would need to be relocated for the proposed project would be undertaken in accordance with Department requirements. The Department would coordinate with the affected service provider in each instance to ensure that work is during times of low demand and in accordance with the appropriate requirements and criteria.

The following minimization measure should be implemented:

- U-1** All public utility lines, pipes, and cables that are disturbed or removed to accommodate the proposed project must be replaced or relocated within the project limits to continue to meet the needs of residents and businesses in the community. During construction, arrangements must be made to avoid disruption in utility services. If interruption in service is unavoidable, then notice must be given and proper arrangements shall be made with residents and businesses.

In addition to the TMP, the following minimization measures address short-term adverse traffic impacts, under both Build Alternatives (Options A and B), related to emergency access during construction activities.

- U-2** In accordance with standard project requirements, a Transportation Management Plan (TMP) shall be prepared for the project prior to construction. The TMP will include plans and requirements for the project area that must be implemented during project construction to ensure traffic safety, minimize construction-related traffic congestion, and minimize driver and pedestrian inconveniences.
- U-3** To ensure that emergency response times are not disrupted, the Orange County Sheriff and Fire Departments must be informed of the project construction schedule, lane closures (if any), and detour plans (if any) well in advance of any detour plan or lane closure being implemented throughout the construction period.
- U-4** Area residents and owners/managers of businesses and public facilities must be continually informed of the project development and construction plans prior to and during the construction period so that they are aware of the construction timing, traffic detour plans, lane/road closures, and transit detour plans.

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